Maintenance Summary Sheet

Rev 2/17/14

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Pontoon Casting Facilities HCS Equipment

Equipment	Manufacturer	Mfr's Warranty	Model	O& M Ref	Description	Inspection Frequency	Inspection
Sluice Gates	Waterman Industries	expired	S-5000	1.1.2C a		at each gate removal	Visual inspection
Pumps	Vaughn Co. Montesano, WA	expired	SE4S3-460V-098	1.1.2C b	Process Water-3 ea, 25hp, 900gpm. E Series Chopper Pump	Monthly/ Annually	Annual-Check cutter clearance Annual-Remove pump and inspect for damage Monthly- Check amperage draw to the pump motor
Pumps	Vaughn Co. Montesano, WA	expired	SE3P1-460V-080	1.1.2C	Groundwater- 2 ea, 7.5hp, 200gpm, submersible chopper pump.	Monthly/ Annually	Annual-Check cutter clearance Annual-Remove pump and inspect for damage Monthly- Check amperage draw to the pump motor
Pumps	Godwin	expired	GSP10	1.2.6	Groundwater- 3 ea, 1.0hp, 200gpm, submersible pump.	Monthly/ Annually	Annual-Check cutter clearance Annual-Remove pump and inspect for damage Monthly- Check amperage draw to the pump motor
Tide Flex Valves	Proco Products Stockton, CA	expired	Proco Style 730		Pro Flex Tide Flex Valves	Periodically	Visual check for cuts, gouges, or cracks in rubber.
Pond Liner	Agru America Georgetown, SC	none	Microspike HDPE Liner 40mil		Microspike HDPE Liner	Periodically	Visual check for cuts, gouges, or cracks in lining.
Electronic Tide Gauge	eTrac Engineering	expired	Tide Trac	1.1.5	TideTrac Tide Gauge	Monthly	Inspect case for damage or water leakage Check battery voltage
Gate Assembly	Jesse Engr	none	N/A	1.1.3G	Paint	Min every 2 years, at every removal	a. Evidence of rust or corrosion of substrate steel. b. Delamination, flaking or blistering of the coating. c. Mechanical damage to the coating system. d. Excessive chalking or erosion ofthe top coat color and the intermediate coat color
Gate Assembly	Jesse Engr	none		1.1.3G b	UHMW Bearings	at each removal	Visual inspection of each bearing- refer to O&M for criteria.
Gate Assembly	Jesse Engr	none		1.1.3G c	Natural Rubber Seals	Min every year, at gate removal	Visual for wear, crushing, cracking, water leaks, bolted connections
Gate Assembly	Jesse Engr	none		1.1.3G d	Screw Jack Assembly	at each removal	Visual for corrosion, overload, wear
Gate Assembly	Jesse Engr	none		1.1.3G e	Belleville Spring Assembly	at each removal	Visual after disassemby for corrosion, overload, wear.
Gate Assembly	Jesse Engr	none		1.1.3G f	Shear Transfer Fittings and Thread Rods	Before flooding basin or removing the gate	Visual for corrosion, overload, wear
Gate Assembly	Jesse Engr	none		1.1.3G g	Maintenance Cleaning	at each removal	Cleaning for visual inspections
Gate Assembly	Jesse Engr	none		1.1.3G h	Gate Inspection Checklist	at each removal	Visual- gate truss members and connections, gate barrier wall,
Standby Generator	MTU Onsite Energy	expired	DS00080D6S-Ak0574	1.3.3	Weekly Checklist found in O&M Manual section 1.3.11, Auxiliary Generator Manufacturer's O&M Manual	Weekly	See Checklist found in manufacturer's O&M Manual, in Casting Basin O&M Manual section 1.3.11

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Storm Water/ Groundwater Management

Area	System	Mfr's Warranty	Function	O&M Ref	Description	Inspection Frequency	Inspection
Surface Conveyance Ditch	Stormwater	none	Stormwater discharge	1.2.1A	Ditches	bi-annually and after major storm events, high run off	Visual for flow obstructions, erosion, clogging, sedimentation, and scouring. Grass lining trimmed short.
Culverts	Stormwater	none	Stormwater discharge	1.2.1B	Culverts	bi-annually and after major storm events	Flush if over 50% constricted.
Emergency Outfall Spillway	Storm/Process Water	none	Stormwater discharge	1.2.1C	Emergency Outfall Spillway, outfall channels, and berms	bi-annually	Channel, spillway and berm tree and shrub growth
Inlets, Catch Basins, Manholes	Storm/Process Water	none	Flow direction	1.2.1D	Inlets, catch basins, Manholes, sump structure, pump structure	bi-annually	Trash, debris, sediments
Control Tees, Shear Gates	Storm/Process Water	Spears Limited Lifetime (Control Tees)	Flow direction	1.2.1D	Control Tees, Shear Gates	bi-annually	Damage, attachment, watertight, corrosion (over 50% rusted)
Biofiltration Swales	Stormwater	none	Stormwater Biofiltration	1.2.4F, 1.2.4E	the parking lot, around the stockpile area, and on the northeast corner of the site	bi-annually and after major storm events, high run off	inspected and maintained according to the criteria established in the table in section 1.2.4F
Pond 1- North pond- Process Water Pond	Process Water	none	water quality wet pond	1.2.2B, 1.2.4A,1.2.4C	Valves located between cells lB and 2, 2 and 3, and 3 and 4 are in an open position and allow for continuous co-mingling between ponds. The pond cells 2 and3 have an HDPE exposed liner visible for regular inspection.	See pumps under Pontoon Casting Facilies section above.	Verify valve position and condition . Reference 1.2.2B, 1.2.4A,1.2.4C forguidance.
Pond 2 -Southwest Pond	Stormwater	none	water quality wet pond	1.2.4A		See water quality wet ponds	
Pond 3- Southeast Pond	Stormwater	none	water quality wet pond	1.2.4A		See water quality wet ponds	
Pond 4	Ground Water	none	presettlement	1.2.4D		See water quality wet ponds	
Process Water Pump System	Process Water	Expired	Basin dewatering	1.2.6	The process water pumps under the north end of the casting basin must stay in operation while the site is not in use. The pumps convey all stormwater runoff collected by the casting basin and precast laydown areas to Pond 1, which functions as a water quality wet pond when the facility is not in production.	See pumps under Pontoon Casting Facilies section above.	`
Ground Water Collection and Pump System	Ground Water	expired	water quality treatment	1.2.6	Only two structures at the south end of the casting basin are associated with the groundwater collection system (a sump structure and a pump structure).	See inlets, catch basins. Manholes above	
Primary and Secondary Outfalls- all ponds	Stormwater	none	Stormwater discharge	1.2.4A	emergency outfalls, side slopes, presettling cells, and debris barriers	bi-annually and after major storm events, high run off	The emergency outfalls, side slopes, presettling cells, and debris barriers shall be inspected and maintained according to the maintenance standards established in the O&M table under maintenance
Oil trapping and Containment	Stormwater	none	Water quality	1.2.4G	Wet Ponds- near primary and emergency outfalls		Containment booms shall be checked and maintained and the covering replaced according to the manufacturer's product specifications,

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Electrical Equipment

Item	Manufacturer	Mfr's Warranty	Model	O&M Ref	Description	Inspection Frequency	Inspection
Transformers	GE	expired	Dry-Type	1.3.1	Transformers inside electrical sheds A & B.	bi-annually	Inspect for and remove dust accumulation on cooling ducts and other surfaces. Remove moisture accumulations (if necessary)
Transformer	HPS	expired	Titan	1.3.1	Transformer outdoors next to standby generator	bi-annually	Inspect for and remove dust accumulation on cooling ducts and other surfaces. Remove moisture accumulations (if necessary)
Switchboards	GE	expired	Spectra Series	1.3.2	Switchboards inside electrical sheds A& B	bi-annually	Inspect for and clean any dust or foreign contaminants from surfaces
Power Monitoring Meter	GE	expired	PQMII	1.3.3	Power Quality Meters inside electrical sheds A & B	bi-annually	check program settings when in use
Panelboard	GE	expired	A Series	1.3.4	Indoor & Outdoor Panelboards	bi-annually	Inspect for and clean any dust or foreign contaminants from surfaces
Panelboard	Eaton	expired	PRL1a	1.3.4	Panelboard outdoors next to standby generator	bi-annually	Inspect for and clean any dust or foreign contaminants from surfaces
Automatic Transfer Switch	GE Zenith	expired	ZTG	1.3.5	ATS outdoors next to standby generator	bi-annually	Inspect for clean and dry surfaces. Service the operating mechanism of the transfer switch with Lubriplate 105.
Site Lighting & Control		expired		1.3.6	Site lighting and control	periodically	Inspect for proper lighting and replace bulbs/components as required
Trip Units	GE	expired	EntelliGuard TU	1.3.7	Mounted to switchboards inside electrical sheds A & B	periodically	See section 1.3.7 of the O&M Manual
Circuit Breakers	GE	expired	Power Break II	1.3.8	Mounted in the Panelboards inside electrical sheds A & B	bi-annually	Inspect for dust accumulation. Verify breaker is operating correctly by opening and closing mechanism annually.
Circuit Breakers	Eaton	expired		1.3.8	Mounted in Panelboard B7a next to standby generator	bi-annually	Inspect for dust accumulation. Verify breaker is operating correctly by opening and closing mechanism annually.
Miscellaneous Electrical Shed Fixtures				1.3.9	Misc. Fixtures	bi-annually	Inspect for and clean any dust or foreign contaminants from surfaces
Sluice Gate Controls	AUMA	expired	SA07.1	1.3.10	Sluice Gate Controls	annually	Inspect for cleanliness, lubrication, seals, fasteners, operation. See O&M Manual. Qualified persons recommended.
Auxilliary Generator	MTU	expired		1.3.11	Standby Generator	Weekly- See O&M	See O&M for checklist